IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1. (Currently Amended) A file generation apparatus for generating a file of first data to be recorded on a recording medium, the file generation apparatus comprising:

memory means for storing data;

first generation means for generating second data to be arranged at the beginning of the file;

second generation means for generating third data to be arranged at the end of the file; and

third generation means for generating fourth data as stuffing data which allows the data amount of each of the first, second, and third data to be an integral multiple of a unit of reading or writing to the recording medium by adding the fourth data to the first data, the second data, and the third data,

wherein the first data includes a body portion of the file, the second data includes a header portion of the file, and the third data includes a footer portion of the file,

wherein the first data is converted from a standard AV multiplexing file that has frame-based video and audio data, the first data being either video data or audio data organized

according to an edit unit, and when the first data is video data, the first data corresponding to each edit unit matches a boundary of a sector unit of the recording medium,

wherein the second data and the third data have a format that is the same as the format of the standard AV multiplexing file, and

wherein the stuffing data has a KLV structure.

2. (Previously Presented) The file generation apparatus according to claim 1,

wherein the first generation means generates the second data.

3. (Previously Presented) The file generation apparatus according to claim 1,

wherein the first generation means further comprises format conversion means for converting the first data into a KLV (Key, Length, Value) structure; and

wherein the first generation means generates the second data composed of the file's header, and a key and a length arranged between the header and the first data.

4. (Previously Presented) The file generation apparatus according to claim 1,

wherein the third generation means generates the fourth data by making an addition to each of N-1 portions of the first data toward the beginning out of the first data divided into N portions, where N is an integer, so that the data amount of each of the first data divided into N-1 portions becomes an integral multiple of a physical unit area of the recording medium and the overall data amount of the first data becomes an integral multiple of the unit of reading and writing on the recording medium.

5. (Previously Presented) The file generation apparatus according to claim 1, wherein the third generation means generates the fourth data for the first data divided into units corresponding to specified reproduction times with video data and audio data for a plurality of channels multiplexed in accordance with the divided units so that the data amount for each of divided units of the first data corresponds to an integral multiple of the unit of reading and writing on the recording medium.

6. (Previously Presented) The file generation apparatus according to claim 5, wherein the third generation means generates the fourth data so that the data amount totaling partition data for separating divided portions of the first data from each other, metadata contained in each of divided portions of the first data, and the video data corresponds to an integral multiple of the unit of reading and writing on the recording medium.

7. (Previously Presented) The file generation apparatus according to claim 5, wherein the third generation means generates the fourth data so that the data amount of each of divided portions of the audio data contained in each of divided portions of the first data corresponds to an integral fraction of the unit of reading and writing on the recording medium and the overall data amount of the audio data corresponds to an integral multiple of the unit of reading and writing on the recording medium.

8. (Currently Amended) A method of generating a file of first data recorded on a recording medium, comprising:

a first generation step of generating second data to be arranged at the beginning of the file;

a second generation step of generating third data to be arranged at the end of the file;

a third generation step of generating fourth data as stuffing data which allows the data amount of each of the first, second, and third data to be an integral multiple of a unit of reading or writing to the recording medium by adding the fourth data to the first data, the second data, and the third data; and

a converting step of converting the first data from a standard AV multiplexing file that has frame-based video and audio data, the first data being either video data or audio data organized according to an edit unit,

wherein when the first data is video data, the first data corresponding to each edit unit matches a boundary of a sector unit of the recording medium,

wherein the first data includes a body portion of the file, the second data includes a header portion of the file, and the third data includes a footer portion of the file,

wherein the second data and the third data have a format that is the same as the format of the standard AV multiplexing file, and

wherein the stuffing data has a KLV structure.

9. (Currently Amended) A computer-readable medium storing an executable

program, that when executed, causes a computer to perform a file generation process of generating a file of first data, the program comprising:

a first generation step of generating second data to be arranged at the beginning of the file;

a second generation step of generating third data to be arranged at the end of the file;

a third generation step of generating fourth data as stuffing data which allows the data amount of each of the first, second, and third data to be an integral multiple of a unit of reading or writing to the recording medium by adding the fourth data to the first data, the second data, and the third data; and

a converting step of converting the first data from a standard AV multiplexing file that has frame-based video and audio data, the first data being either video data or audio data organized according to an edit unit,

wherein when the first data is video data, the first data corresponding to each edit unit matches a boundary of a sector unit of the recording medium,

wherein the first data includes a body portion of the file, the second data includes a header portion of the file, and the third data includes a footer portion of the file,

wherein the second data and the third data have a format that is the same as the format of the standard AV multiplexing file, and

wherein the stuffing data has a KLV structure.

10. (Currently Amended) A recording medium to record a file of first data,

wherein first additional data as stuffing data is added to record the first data whose data amount corresponds to an integral multiple of a unit of reading or writing to the recording medium so that a boundary of the first data matches a boundary of the unit;

wherein second data is arranged at the beginning of the file and is attached with second additional data as stuffing data to have the data amount corresponding to an integral multiple of the unit so that a boundary of the second data matches a boundary of the unit; and

wherein third data is arranged at the end of the file and is attached with third additional data as stuffing data to have the data amount corresponding to an integral multiple of the unit so that a boundary of the third data matches a boundary of the unit,

wherein the first data includes a body portion of the file, the second data includes a header portion of the file, and the third data includes a footer portion of the file,

wherein the first data is converted from a standard AV multiplexing file that has frame-based video and audio data, the first data being either video data or audio data organized according to an edit unit, and when the first data is video data, the first data corresponding to each edit unit matches a boundary of a sector unit of the recording medium,

wherein the second data and the third data have a format that is the same as the format of the standard AV multiplexing file, and

wherein the stuffing data has a KLV structure.

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